

ABSTRACT OF DISCLOSURE

5 The invention provides a sound detecting mechanism capable of forming a diaphragm and a back electrode on a substrate by a simple process.

10 Acoustic holes corresponding to perforations Ba are formed on a front surface of a substrate A. A second protective film 406, a sacrificial layer D (407) and a metal film 408 are laminated on the front surface in a portion corresponding to the acoustic holes. The substrate
15 A is etched from the back surface thereof to a depth reaching the acoustic holes to form an acoustic opening E. Subsequently, by effecting an etching from the back surface of the substrate A through the acoustic holes, the sacrificial layer 407 is removed and there are formed a void area F between the diaphragm C made of the metal film
20 408 and the substrate A and formed the perforations Ba. The sacrificial layer 407 remaining after the etching is used as a spacer D for maintaining a gap between the back electrode B and the diaphragm C.

SOUND DETECTING MECHANISM

ABSTRACT OF DISCLOSURE

A sound detecting mechanism capable of forming a diaphragm and a back electrode on a substrate by a simple process includes acoustic holes corresponding to perforations formed on a front surface of a substrate. A second protective film, a sacrificial layer and a metal film are laminated on the front surface in a portion corresponding to the acoustic holes. The substrate is etched from the back surface thereof to a depth reaching the acoustic holes to form an acoustic opening. Subsequently, by effecting an etching from the back surface of the substrate through the acoustic holes, the sacrificial layer is removed and a void area is formed between the diaphragm made of the metal film, the substrate and the formed perforations. The sacrificial layer that remains after the etching is used as a spacer for maintaining a gap between the back electrode and the diaphragm.